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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CRAIG S. ETCHEGOYEN

Appeal 2016-000737
Application 13/707,840
Technology Center 3600

Before JOSEPH L. DIXON, CATHERINE SHIANG, and
LINZY T. McCARTNEY, *Administrative Patent Judges*.

DIXON, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant¹ appeals under 35 U.S.C. § 134(a) from a Final Rejection of claims 1–18. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

The claims are directed to inferring user demographics through network activity records. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A method for characterizing a user of a remotely-located computer, the method comprising:

receiving, at a server, personal information from the remotely-located computer, wherein the personal information includes one or more items of data representing prior user-initiated network activity of the remotely-located computer;

for each of the items of data of the personal information:

determining that one or more predetermined demographic characteristic inference rules apply to the item of data; and

adjusting one or more demographic characteristic inferences according to the applicable predetermined demographic characteristic inference rules; and

inferring one or more characteristics of the user from the demographic characteristic inferences.

¹ Appellant indicates that Uniloc Luxembourg S.A. is the real party in interest.

REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Lajoie	US 2009/0187939 A1	July 23, 2009
Wang et al.	US 2010/0235241 A1	Sept. 16, 2010
Priyadarshan et al.	US 2012/0041969 A1	Feb. 16, 2012
Black et al.	US 8,255,948 B1	Aug. 28, 2012

REJECTIONS

The Examiner made the following rejections in the Final Action:

Claims 1, 2, 4–7, 9–12, 14, and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang view of Black.

Claims 3, 8, and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang and Black in further view of Lajoie.

Claims 15–18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang and Black, in further view of Priyadarshan.

NEW GROUND OF REJECTION

The Examiner made a new ground of rejection in the Examiner's Answer:

Claims 1–18 stand rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter.² (Ans. 3–8).

ANALYSIS

We concur with the conclusions reached by the Examiner, and adopt as our own (1) the findings and reasons set forth by the Examiner in the action from which this appeal is taken (Final Act. 7–34; Ans. 3–36), and

² Appellant did not request that the Examiner reopen the prosecution on the merits, and Appellant addresses the § 101 rejection in the Reply Brief.

(2) the reasons set forth by the Examiner in the Examiner's Answer in response to Appellant's Appeal Brief (Ans. 37–42). We highlight and amplify certain teachings and suggestions of the references, as well as certain ones of Appellant's arguments as follows.

35 U.S.C. § 101

With respect to independent claims 1, 6, and 11, the Examiner contends, "Claims 1–18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter." (Ans. 4). The Examiner further finds, "After considering all claim elements, both individually and in combination, it has been determined that the claim does not amount to significantly more than the abstract idea itself or more than a mere instruction to apply the abstract idea." (Ans. 5). We agree with the Examiner.

Appellant generally contends the claims are directed to statutory subject matter. (Reply Br. 4–9).

Applicant respectfully submits that when considered in its entirety, each independent claim provides sufficient structure and description to clearly render the claim patent eligible. Further, the claimed solution is rooted in computer technology to overcome a problem specifically created in the realm of computer networks. The claimed embodiments address the problem of identifying and characterizing a user of a remote computer solely through analyzing that user's usage habits as gleaned through the network interactions of that user through the remotely-located computer. The problem would not have arisen absent creation and use of computer and data networks. The claimed embodiments may also be considered as an improvement to the function of a data network. Thus, the solution

is necessarily rooted in the same computer network technology from which the problem arises.

(Reply Br. 7–8). With regards to Appellant’s argument that the problem is “rooted in computer technology,” we find Appellant’s claimed invention only nominally claims a computer implemented invention, which does not amount to significantly more than the abstract idea itself.

Appellant further contends “the claim as a whole amounts to significantly more than the abstract idea of comparing new and stored information and using rules to identify options. Indeed, the claims define new paths for gathering and organizing data and provide a means of inferring and identifying user characteristics.” (Reply Br. 9). We disagree and find that Appellant’s arguments generally rely upon the disclosed invention and unclaimed subject matter. Consequently, Appellant’s argument does not show error in the Examiner’s factual findings and conclusion that independent claims 1, 6, and 11 are directed to non-statutory subject matter under 35 U.S.C. § 101.

Appellant does not set forth separate arguments for patentability of any of the dependent claims, and we group these claims as falling with their respective parent independent claims.

Appellant does not set forth separate arguments for patentability of independent claims 1, 6, and 11, and their respective dependent claims. We select independent claim 1 as the representative claim for the group.
37 C.F.R. § 41.37(c)(1)(iv).

Additionally, we agree with the Examiner and find representative independent claim 1 to be directed to non-statutory subject matter under 35

U.S.C. § 101 under the guidance set forth in *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014). (Ans. 3–7).

Following the two-part *Alice* analysis, claim 1 is first examined to determine if it is directed toward an abstract idea. Claim 1 is drawn to an abstract idea of inferring demographic characteristics of the user using application of predetermined demographics inference rules stored by the server to the personal information provided by the client. (Spec. 20, Abstract).

Claim 1 describes a method for “characterizing a user of a remotely-located computer.” Specifically, claim 1 recites “receiving, at a server, personal information from the remotely-located computer, wherein the personal information includes one or more items of data representing prior user-initiated network activity of the remotely-located computer,” “for each of the items of data of the personal information,” “determining that one or more predetermined demographic characteristic inference rules apply to the item of data,” “adjusting one or more demographic characteristic inferences according to the applicable predetermined demographic characteristic inference rules,” and “inferring one or more characteristics of the user from the demographic characteristic inferences.” App. Br. 16 (Claims App’x).

In other words, claim 1 recites a method in which:

demographic characteristics, and therefore interests and some broad personality characteristics, of a user of a networked computer are inferred by a remotely-located server from data representing network activity of the user. Personal information relating to network activity by the user's computer is accumulated from the use of one or more browsers used on the networked client computer and sent to a server. The server uses

the network activity data to infer a demographic profile of the user. This demographic profile allows the server to add customized network content to pages sent at the request of the client computer as well as to anticipate changes in the interests of the user of the client networked computer.

(Spec. 2, ¶ 6). As our reviewing court recently reiterated, “organizing and accessing records through the creation of an index-searchable database, includes longstanding conduct that existed well before the advent of computers and the Internet,” and patent claims have been held ineligible for reciting similar abstract concepts that merely collect, classify, or otherwise filter data. *Intellectual Ventures I LLC v. Erie Indemnity Co.*, Nos. 2016-1128, 2016-1132, 2017 WL 900018, at *7 (Fed. Cir. March 7, 2017).

Moreover, the Federal Circuit has held “[w]ithout additional limitations, a process that employs mathematical algorithms to manipulate existing information to generate additional information is not patent eligible.”

Digitech Image Techs., LLC v. Elecs. for Imaging, Inc., 758 F.3d 1344, 1351 (Fed. Cir. 2014). Thus, claim 1 is directed to an abstract concept of inferring data from prior inferences or rules and is, therefore, directed to an abstract idea.

The second part of the Alice analysis requires an examination of the claim elements individually and as a whole to determine whether they provide an “inventive concept” that is enough to transform the claim into something significantly more than the abstract idea itself. *See Alice*, 134 S. Ct. at 2355. With regard to claim 1, in addition to “receiving, at a server, personal information from the remotely-located computer, wherein the personal information includes one or more items of data representing prior user-initiated network activity of the remotely-located computer,” the claim

merely sets forth a generic server and data (personal information) received from a remotely-located computer. The received data is then used for “determining that one or more predetermined demographic characteristic inference rules apply to the item of data,” “adjusting one or more demographic characteristic inferences according to the applicable predetermined demographic characteristic inference rules,” and “inferring one or more characteristics of the user from the demographic characteristic inferences.”

Taken individually, the remaining limitations recite broad routine computer functions and amount to no more than the performance of well-understood, routine, and conventional activities known to the data processing industry. Thus, while the claims limit the idea of “determining predetermined demographic characteristic inference rules” and “inferring characteristics of a user,” the claimed computer functionality is merely generic or conventional steps. Thus, evaluating these claimed elements either individually or as a whole, claim 1 recites no more than routine activities involving generic computer components and conventional computer data processing activities to accomplish the well-known concept of inferring demographic characteristics. As such, the remaining limitations are abstract and fail to transform the claim into something sufficiently more than an abstract idea.

Consequently, representative independent claim 1, and independent claims 6, and 11, not separately argued, are directed to non-statutory subject matter under 35 U.S.C. § 101.

35 U.S.C. § 103

With respect to independent claims 1, 6, and 11, Appellant present arguments to the claims together. (App. Br. 10). Therefore, we select independent claim 1 as the representative claim for the group and will address Appellant's arguments thereto. 37 C.F.R. § 41.37(c)(1)(iv).

The Examiner finds the Wang reference teaches a majority of the claimed invention, but not the claimed "adjusting one or more demographic characteristic inferences according to the applicable predetermined demographic characteristic inference rules" and that the Black reference remedies the deficiency in the Wang reference. (Final Act. 7–13).

Appellant presents arguments to the Black reference. Appellant contends:

However, *Black* does not disclose or suggest adjusting *user* demographic characteristics, much less adjusting *user* demographic characteristics according to predetermined inference rules. At best, *Black* discloses classifying media content and inferring or identifying demographic information based on that media content. *Black* does not, however, make any inferences on the users themselves or using demographic information based on media content to infer or adjust a specific *user's* demographic characteristic profile.

(App. Br. 12–13). Appellant further contends:

However, none of these features - - even if allegedly disclosed in *Black* -- is directed to classifying demographic characteristics of a specific *user* or making adjustments to *user* profiles based on predetermined demographic rules. Rather, *Black* is directed to classifying the content itself to identify a target audience in general. Indeed, the usage information that users and advertisers provide in *Black* is directed user behaviors related to ads themselves, not to adjust a *user's* demographic characteristics, much less making any such adjustments according to any predetermined demographic rules.

(App. Br. 13).

The Examiner explains the correlation of the prior art teachings of the Black reference to meet the claimed limitation. (Ans. 39–40). The Examiner further maintains:

Since the criteria used to generate the learning model to infer demographic information are essentially guidelines to aid the system in inferring the demographic information, it is determined that the criteria is the predetermined rules. Thus, contrary to Appellant’s assertion, Black does indeed adjust one or more demographic inferences according to the applicable predetermined demographic characteristic inference rules.

(Ans. 40). The Examiner further explains the broadest reasonable interpretation of the claim limitation.

During examination, the Examiner provided evidence showing that the applied art (Black) disclosed predetermined demographic characteristic inference rules. The term “rules” is typically applied to mean “a principle or guideline governing conduct, action, procedure, arrangement, etc.” in everyday language. When given the broadest reasonable interpretation the term predetermined demographic characteristic inference rules reasonably comprises any guide, guideline, criteria, test, basis used to infer demographic characteristics. The Examiner relied on the broadest reasonable interpretation when rejecting the claims in the previous office action. Thus, given the broadest reasonable interpretation consistent with the specification in construing the claimed invention, it is Examiner’s position that the disclosure of Black teaches and at least suggests the disputed limitation. For the reasons detailed above, the Examiner is not persuaded that the independent claim is patentably distinguishable over Wang in view of Black.

(Ans. 40–41).

Appellant does not respond to the Examiner’s further clarifications regarding the teachings of the Black reference in the Reply Brief.

Consequently, Appellant has not shown error in the Examiner’s position

regarding the Black reference as relied upon in the obviousness rejection of representative independent claim 1.

Hindsight

Finally, Appellant contends that the Examiner's rejection is based upon hindsight reconstruction and information gleaned from Appellant's specification. We disagree with Appellant and find the Examiner has provided a reasoned statement of motivation for the combination.

While we are fully aware that hindsight bias often plagues determinations of obviousness, *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 36 (1966), we are also mindful that the Supreme Court has clearly stated that the "combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 416 (2007).

This reasoning is applicable here. We agree with the Examiner that

[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to modify Wang to include the teachings of Black, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same functions as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

(Final Act. 13). Thus, we find unavailing Appellant's contention that the Examiner has relied on impermissible hindsight reconstruction. That is, given the breadth of Appellant's claims, we are not persuaded that combining the respective familiar elements of the cited references in the manner proffered by the Examiner was "uniquely challenging or difficult for one of ordinary skill in the art." *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007) (citing *KSR*, 550 U.S. at 418).

Therefore, we find the Examiner's proffered combination of familiar prior art elements according to their established functions would have conveyed a reasonable expectation of success to a person of ordinary skill having common sense at the time of the invention.

Appellant relies upon the argument that neither the Wang nor the Black reference teaches or discloses the claimed "adjusting one or more demographic characteristic inferences according to the applicable predetermined demographic characteristic inference rules" and that the Examiner has relied upon paragraph 42 of Appellant's Specification to reconstruct the claimed invention. (App. Br. 14).

Thus, on this record, we are not persuaded of error regarding the Examiner's proffered reason for combining the cited references.

We disagree with Appellant and find the Examiner has explained the reliance upon each of the individual references and the motivation for the combination (Ans. 9–15), and Appellant has not presented persuasive argument to the contrary. As a result, we find Appellant's argument to be unpersuasive of error in the Examiner's factual findings or reasoned conclusion of obviousness of representative independent claim 1 and its respective dependent claims.

Because Appellant has not set forth separate arguments for patentability of independent claims 6 and 11 and their respective dependent claims, we group these claims as falling with representative independent claim 1.

With respect to dependent claims 3, 8, and 13, Appellant does not set forth separate arguments for patentability of these claims. (App. Br. 14–15).

Therefore, we group these claims as falling with representative independent claim 1.

With respect to claims 15–18, Appellant relies upon the arguments advanced with respect to independent claim 1. (App. Br. 15). Therefore, we group these claims as falling with representative independent claim 1.

CONCLUSIONS

The Examiner did not err in rejecting claims 1–18 as directed to non-statutory subject matter under 35 U.S.C. § 101, and the Examiner did not err in rejecting claims 1–18 as obvious under 35 U.S.C. § 103.

DECISION

For the above reasons, we sustain the Examiner’s rejections of claims 1–18 under 35 U.S.C. §§ 101 and 103.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED